

28



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,343	10/15/2001	J Eric Mowat	5693P005	5512

48102 7590 02/24/2005

NETWORK APPLIANCE/BLAKELY  
 12400 WILSHIRE BLVD  
 SEVENTH FLOOR  
 LOS ANGELES, CA 90025-1030

EXAMINER

BILGRAMI, ASGHAR H

ART UNIT	PAPER NUMBER
----------	--------------

2143

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/981,343

Applicant(s)

MOWAT, J ERIC

Examiner

Asghar Bilgrami

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/15/2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shapiro et al (U.S. 5,991,810) and Massarani (U.S. 6,336,117).

3. As per claims 1, 5, 15, 20, 23, 26, 31, 32, 34, 37, 41 & 42 a network caching device to operate within a defined cache hierarchy on a network, the caching device comprising: a cache to store content from an origin server on the network; an application to receive a request for content from a client via the network, and to forward the request on the network based on a set of forwarding rules in the event of a cache miss (Shapiro, col.2, lines 1-33).

However Shapiro did not disclose in detail a user interface to enable a user to specify and modify the set of forwarding rules; a rule encoder to encode into a uniform syntax forwarding rules specified by the user; a rules database to store the encoded forwarding rules; a rule evaluator to evaluate the set of forwarding rules sequentially in response to the cache miss, to identify a rule in the set of forwarding rules which applies to the request, by identifying a correspondence between a variable in the request and a variable in the rule, the rule specifying a host within the cache hierarchy as a forwarding destination for the request; and a rule engine to determine an availability of the host and to select the host as said forwarding destination for the request if the

Art Unit: 2143

host is available, the rule engine further to indicate the host to the application layer if the host is available to cause the application layer to attempt to establish a connection with the host, such that the application layer forwards the request to the host upon successfully establishing the connection. In the same field on endeavor Massarani disclosed a user interface to enable a user to specify and modify the set of forwarding rules; a rule encoder to encode into a uniform syntax forwarding rules specified by the user (Massarani, col.5, lines 10-16); a rules database to store the encoded forwarding rules (col.5, lines 17-18); a rule evaluator to evaluate the set of forwarding rules sequentially in response to the cache miss, to identify a rule in the set of forwarding rules which applies to the request, by identifying a correspondence between a variable in the request and a variable in the rule, the rule specifying a host within the cache hierarchy as a forwarding destination for the request (col.5, lines 17-35); and a rule engine to determine an availability of the host and to select the host as said forwarding destination for the request if the host is available, the rule engine further to indicate the host to the application layer if the host is available to cause the application layer to attempt to establish a connection with the host, such that the application layer forwards the request to the host upon successfully establishing the connection (col.5, lines 54-67 & col.6, lines 8-19).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to incorporate user defined forwarding rules in relation to the client request as described by Massarani in a network cache device as described by Shapiro to make the network caching device more robust and deliver users the flexibility to manage their network browsing experience.

Art Unit: 2143

4. As per claims 2, 16 & 40 Shapiro-Massarani disclosed a device as recited in claim 1, wherein the device operates within a defined forwarding hierarchy, and the user may specify one or more of the forwarding rules to indicate a manner of forwarding the request within the forwarding hierarchy (.

5. As per claims 3, 17, 24 & 35 Shapiro-Massarani disclosed a device as recited in claim 2, wherein the forwarding hierarchy is a cache hierarchy.

6. As per claims 4, 18, 19, 25 & 36 Shapiro-Massarani disclosed a device as recited in claim 3, further comprising a cache to store content requestable by a client on the network, wherein the request processing unit forwards the request only in the event of a cache miss, wherein the request is a request for content on the network (Shapiro, col.5, lines 18-52).

7. As per claims 6, 21, 27 & 28 Shapiro-Massarani disclosed an intermediary network node as recited in claim 26, wherein the rule evaluator identifies the rule, which applies to the request by determining that a condition in the rule is satisfied (Shapiro, col.5, lines 18-34).

8. As per claims 7, 38 & 39 Shapiro-Massarani disclosed a method as recited in claim 37, further comprising, if said attempting to establish the connection is unsuccessful: determining whether a second available host is indicated in the rule, and if so, attempting to establish a connection to the second available host; and forwarding the request to the second available host (Shapiro, col.5, lines 35-58).

Art Unit: 2143

9. As per claims 8, 33 & 29 Shapiro-Massarani disclosed a device as recited in claim 1, wherein said rule comprises a plurality of destinations, and wherein the rule engine selects a destination from among the plurality of destinations as a forwarding destination for the request, based on at least one delivery factor included in the rule (Shapiro, col.5, lines 18-57).

10. As per claim 9 Shapiro-Massarani disclosed a device as recited in claim 8, wherein the at least one delivery factor comprises a specified distribution method for the request (Massarani, col.5, lines 54-67).

11. AS per claim 10 Shapiro-Massarani disclosed a device as recited in claim 8, wherein the at least one delivery factor comprises an indication of a current load on at least one of the destinations (Massarani, col.7, lines 55-67 & col.8, lines 1-6).

12. As per claim 11 Shapiro-Massarani disclosed a device as recited in claim 8, wherein the at least one delivery factor comprises a weighting of the plurality of destinations indicating a preferred distribution of forwarding requests between the plurality of destinations (Massarani, col.7, lines 55-67 & col.8, lines 1-6).

13. As per claims 12, 13, 14, 16, 22, 30 & 43 Shapiro-Massarani disclosed a device as recited in claim 1, wherein the user interface is further to enable the user to specify a sequence in which the rules of the set of forwarding rules are evaluated in response to the request (col.5, lines 54-67).

Art Unit: 2143

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asghar Bilgrami whose telephone number is 571-272-3907. The examiner can normally be reached on M-F, 8:00-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Asghar Bilgrami  
Examiner  
Art Unit 2143

AB

William C. Vaughn  
Primary Examiner  
Art Unit 2143  
William C. Vaughn, Jr.